

ATTORNEY DOCKET NO. 5361-1

IN THE CLAIMS:

This Listing of Claims replaces all prior Listings and versions of claims in the above-identified application.

Listing of Claims:

- 1-2. (Cancelled)
3. (Previously Presented) An isolated DNA molecule comprising a nucleotide sequence of SEQ ID NO:3.
- 4-5. (Cancelled)
6. (Previously Presented) A DNA construct comprising a nucleotide sequence of SEQ ID NO:3 operatively linked to expression control sequences.
- 7-21. (Cancelled)
22. (Previously Presented) A transgenic host cell comprising DNA encoding a dicamba-degrading oxygenase having the amino acid sequence of SEQ ID NO:4, said DNA being operatively linked to expression control sequences.
23. (Original) The transgenic host cell of Claim 22 wherein the DNA comprises the nucleotide sequence of SEQ ID NO:3.
24. (Currently Amended) The transgenic host cell of any one of Claims ~~21~~, 22 or ~~23-58~~ which is a plant cell.
- 25-36. (Cancelled)
37. (Currently Amended) A transgenic plant or part of a said transgenic plant comprising one or more cells comprising DNA encoding a dicamba-degrading oxygenase having the amino acid sequence of SEQ ID NO:4.
38. (Previously Presented) The transgenic plant or plant part of Claim 37 wherein the DNA comprises the nucleotide sequence of SEQ ID NO:3.
- 39-43. (Cancelled)
44. (Currently Amended) A method of controlling weeds in a field containing a transgenic plant according to any one of Claims ~~36~~, 37, ~~38~~ or ~~73-62~~, comprising applying an amount of dicamba to the field effective to control the weeds in the field.

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45-46. (Cancelled)

47. (Currently Amended) A method of selecting transformed plant cells comprising:

providing a population of plant cells;

transforming at least some of the plant cells in the population of plant cells with the DNA construct according to any one of Claims 5, 6, 56 or 57; and

selecting the transformed plant cells by culturing the resulting population of plant cells in a culture medium containing dicamba at a concentration selected so that transformed plant cells proliferate and untransformed plant cells do not proliferate.

48. (Currently Amended) A method of selecting transformed plants comprising:

providing a population of plants which comprises one or more plants comprising the DNA construct according to any one of Claims 5, 6, 56 or 57; and

selecting transformed plants by applying an amount of dicamba to the population of plants selected so that transformed plants grow, and growth of untransformed plants is inhibited.

49-52. (Cancelled)

53. (Previously Presented) An isolated DNA molecule comprising a DNA sequence encoding a dicamba-degrading oxygenase having the amino acid sequence of SEQ ID NO:4.

54-56. (Cancelled)

57. (Previously Presented) A DNA construct comprising a DNA sequence encoding a dicamba-degrading oxygenase having the amino acid sequence of SEQ ID NO:4.

58-71. (Cancelled)

72. (Previously Presented) The DNA construct of Claim 6 which is a vector.

73. (Previously Presented) The transgenic plant or plant part of Claim 37 wherein the plant is a broadleaf plant which is tolerant to dicamba as a result of the expression of the dicamba-degrading oxygenase and the plant part is a part of a broadleaf plant which is tolerant to dicamba as a result of the expression of the dicamba-degrading oxygenase.